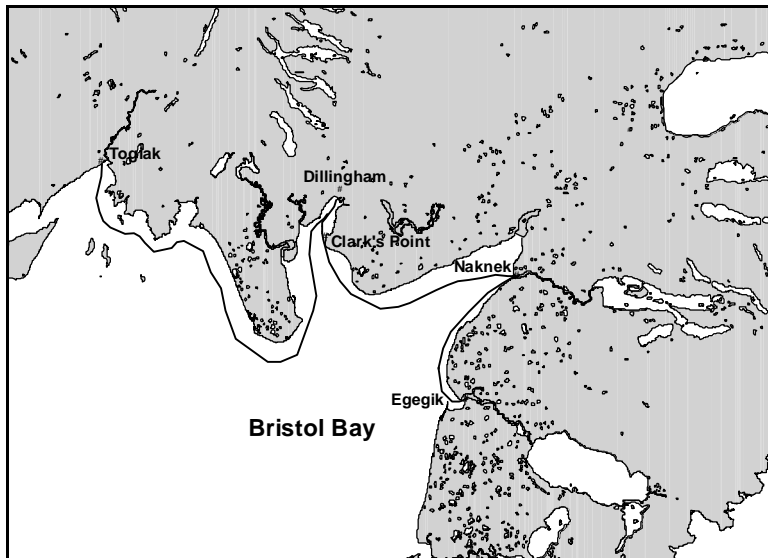


BRISTOL BAY MARINE LINK



Only operates May through October, the rest of the time it is waiting on tides.

Making Regional Links

Togiak, Dillingham, Clarks Point, Naknek, and Egegik are all communities along the northern and western shores of Bristol Bay, none of which currently receives AMHS service. Dillingham, with a population of 2,226, is the economic, government, transportation and public service center for western Bristol Bay. The primary value of providing this missing marine link would be to give surrounding communities more than one mode of transportation to this regional hub.

The Project

The service concept envisioned would involve a shallow-draft landing craft to serve a route consisting of Togiak, Clarks Point, Naknek, and Egegik, with Dillingham as its homeport. The dimensions of such a vessel would consist of an LOA of about 150 feet, a beam of about 47 feet, a hull depth of about 10 feet, and a draft of about 4'0" to 6'. A special feature of the vessel required for such service would include a vehicle elevator/turntable, similar to the one on the Tustumena. A service speed of 12 knots would be feasible. Service demand is estimated at between three and 20 passengers per trip, and from three to 33 vehicles per trip.

Seven crew would be required: a master, two mates, two engineers, and two A.B.s. Service frequency is envisioned at once a week to Togiak, Egegik, and Naknek, although Dillingham and Clarks Point would be served several times a week, as reflected in the model schedule.

Table 49
Model Schedule
Bristol Bay Marine Link

	Arrival		Departure		Port Time	Sailing Time
	Day	Time	Day	Time	Duration	Duration
Dillingham			Monday	6:00		1:10
Clarks Point	Monday	7:10	Monday	7:40	0:30	10:40
Togiak	Monday	18:20	Tuesday	6:20	12:00	10:40
Clarks Point	Tuesday	17:00	Tuesday	17:30	0:30	1:10
Dillingham	Tuesday	18:40	Wed.	6:40	12:00	4:00
Clarks Point	Monday	16:57	Monday	17:27	0:30	0:22
Egegik	Wed.	13:20	Thursday	1:20	12:00	4:00
Naknek	Thursday	5:20	Thursday	17:20	12:00	5:50
Clarks Point	Thursday	23:10	Thursday	23:40	0:30	1:10
Dillingham	Friday	0:50				

Operational Issues

No required shoreside upgrades to infrastructure have been identified. Basically, all that is needed to accommodate the service envisioned is a city or cannery dock with 6-8 feet of water at high tide, which each of these communities has. However, because of shallow water at Togiak, Clarks point, and Dillingham, scheduling would be dictated to some degree by tides, which could result in delays of up to six hours. The model schedule reflects this consideration. Historic ice freeze-up and breakup patterns indicate that this service could be operated from approximately May 1 through October 1.

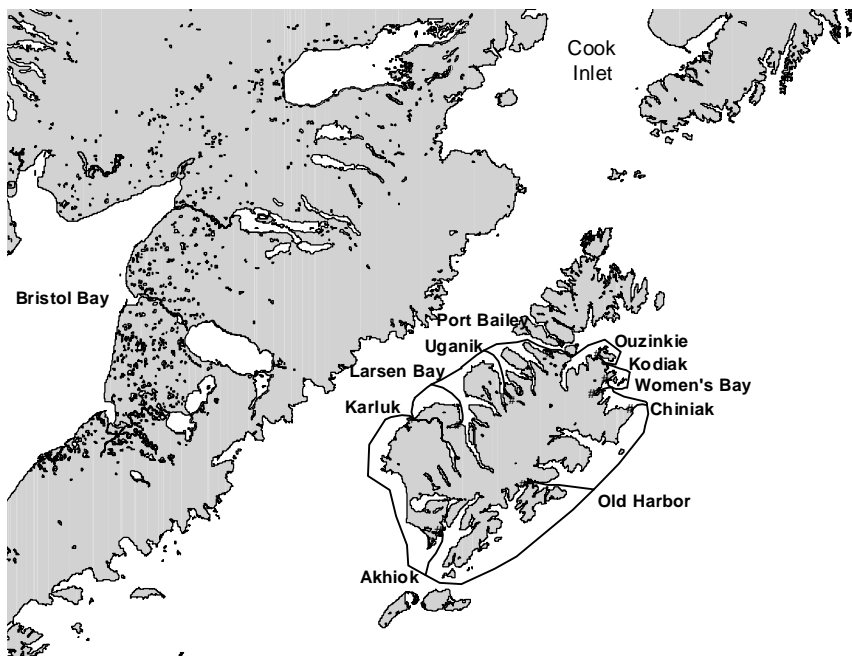
Table 50
Estimated Vessel Acquisition and Operating Costs

	Minimum	Maximum
Vessel Acquisition Cost	\$3,250,000	\$3,750,000
Subtotal: (Acquisition Cost)	\$3,250,000	\$3,750,000
Hull Maintenance	\$5,400	\$6,600
Machinery Maintenance	\$9,100	\$11,100
Crew	\$283,000	\$1,554,000
Fuel	\$174,000	\$217,000
Lubricating Oil	\$2,500	\$3,200
Berthing	\$8,300	\$10,100
Insurance	\$100,000	\$161,000
Subtotal: (Annual Operating Cost)	\$583,000	\$1,196,400

Estimated Demand

Demand for this service is estimated at 3,500 passengers and 620 vehicles per year.

INTRA-KODIAK ISLAND MARINE SERVICE



INTRODUCTION

Provision of a surface transportation mode linking the roadless coastal communities of Kodiak Island to the City of Kodiak has been identified as desirable. Examination of the navigation charts for the ports and harbors serving these communities has indicated that many are unapproachable by large and/or deep draft vessels. Accordingly it is concluded that if a marine transportation link is to be provided it must be a new, purpose designed and built vessel. As these communities, in general, do not even have local road systems, a passenger-only vessel can meet the needs of this service.

Characteristics of this service include exposed waters with strong winds and rough seas, narrow rocky passages, limited visibility (e.g. fog), and shoal draft ports and harbors. It is suggested that, to meet the demands of this service, the new passenger-only ferry vessel be approximately 150 feet in length and that it carry its own lighter to gain access to the shoal draft ports. Thus the new vessel must be capable of carrying its own lighter aboard ship, and of launching and retrieving that lighter. The lighter should be designed as a shoal draft landing craft and must be approximately 30 to 40 feet long for this service.

Initial identification of communities to be served include: Old Harbor, Akhiok, Karluk, Larsen Bay, Uganik, Port Bailey, Port Lions, and Ouzinkie. Women's Bay and Chiniak have also been mentioned, but both are connected by road to the City of Kodiak. No communities have been identified in association with Chiniak or Uganik. It is presumed that Port O'Brien, located on Uganik Bay, is the community of interest in the latter case.

Figure 13
Coastal Communities of Kodiak Island



Outports of Kodiak Island

Initial identification of communities to be served include: Old Harbor, Akhiok, Karluk, Larsen Bay, Uganik (Port O'Brien), Port Bailey, Port Lions, and Ouzinkie. Womens Bay and Chiniak have also been mentioned, but both are connected by road to the City of Kodiak.

WOMENS BAY

Womens Bay is the site of a U.S. Coast Guard base and is subject to Naval Defensive Sea Area and Airspace Reservations (restrictions currently suspended). Prior to entering the channel into Women's Bay vessels must first obtain channel clearance permission from the Port Services Officer, Coast Guard Support Services Center, Kodiak.

The entrance to Womens Bay is obstructed by numerous and extensive rocks and reefs; some are awash at extreme low water while others are up to 6 feet high. A 400-foot wide buoyed channel passes through this foul area area NW of Zaimka Island to deeper water inside. The controlling depth to the wharves is about 29 feet. In winter, buoys are often moved off station due to ice floes.

As Womens Bay is connected by road to the City of Kodiak, and situated nearby the civilian airport serving the City of Kodiak, it is recommended that Womens Bay not be included among the ports served by an Intra-Kodiak Borough ferry.

CHINIAK

Cape Chiniak, Chiniak Island, and Chiniak Bay are all prominent features of Kodiak Island nearby to the City of Kodiak. No settlements are identified with these features in the U.S. Coast Pilot and navigation charts do not note any settlements in proximate association with these features. In any event, roads are shown in the general vicinity of Cape Chiniak and connecting back to Womens Bay and the City of Kodiak. For these reasons it is recommended that Chiniak not be included among the ports served by an Intra-Kodiak Borough ferry.

OLD HARBOR (CHART 16592)

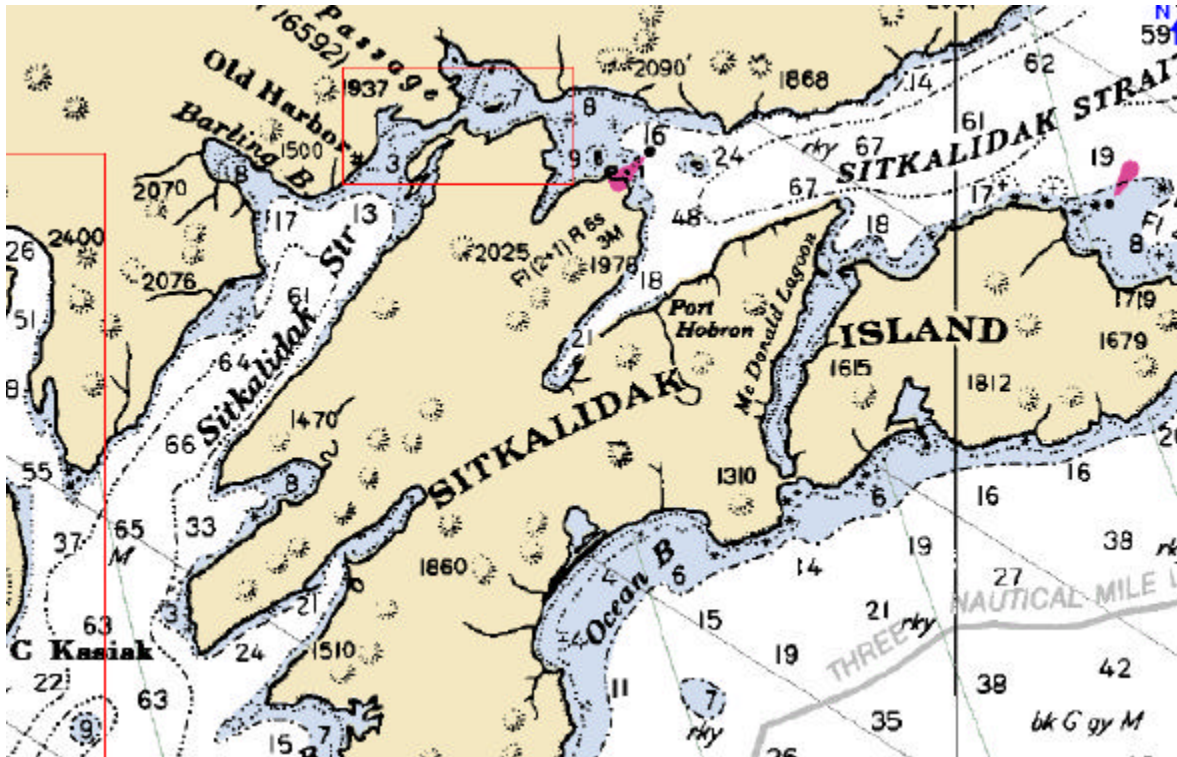
Old Harbor is a native village on the W side of Sitkalidak Strait 1 mile from the W end of Sitkalidak Passage. A school and trading post are in the village.

An L-shaped pier, at Old Harbor, has a 67-foot face with about 15 feet reported alongside. A dolphin is about 45 feet NE of the pier and parallel with the face.

Between Old Harbor and the round point on the opposite shore, Sitkalidak Strait narrows to about 0.5 mile. The W half of this part of the strait is a sandy shoal having depths less than 3 fathoms. Some piles are at the S end of the shoal, 450 yards E of the L-shaped pier, at Old Harbor. A small reef, which uncovers 4 feet, is 100 yards off the E shore of the strait opposite Old Harbor.

A small-boat basin has been dredged at the head of an unnamed cove on the W side of Sitkalidak Strait, about 700 yards N of Old Harbor. A marked dredged channel leads W from the strait to the basin. A diversion dike protects the basin on the N side, and a 240-foot-long groin on the S side of the entrance protects the channel from shoaling. In 1976, the entrance channel and basin had depths of 8 feet. The basin will provide protected moorage at a 562-foot float in the SW end of the basin for resident and transient commercial fishing vessels.

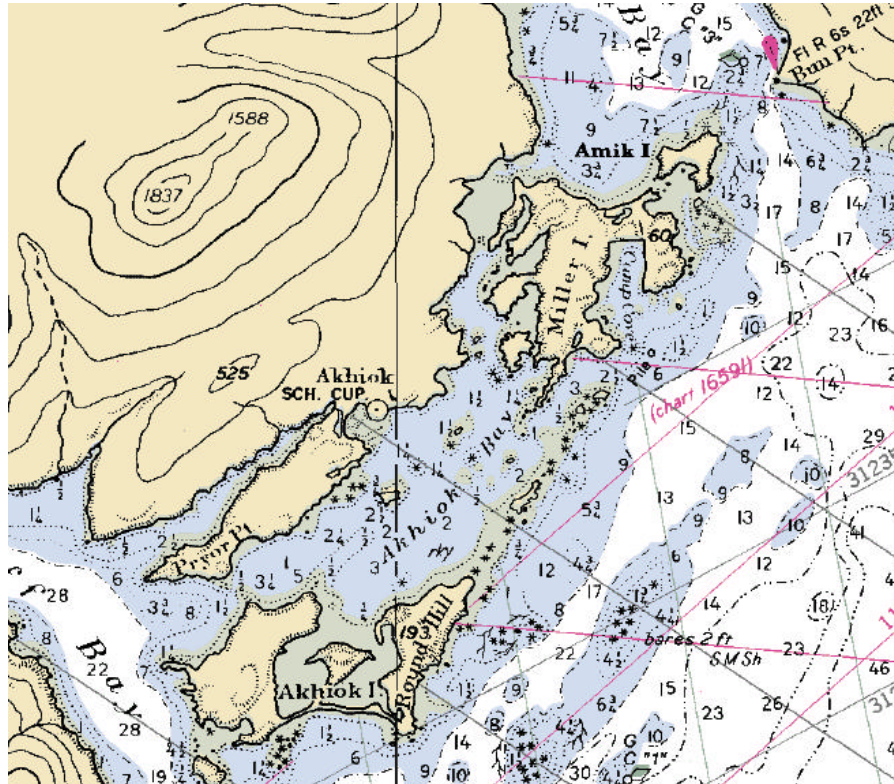
Figure 14
Old Harbor



AKHIOK (CHARTS 16590, 16591)

Akhiok, a native village on the beach of Akhiok Bay about 1.5 miles NE from Kempff Bay, has a schoolhouse and a Russian Orthodox Church. A foot trail leads from the cannery at Lazy Bay to Akhiok. Akhiok is best reached by launch via the passage from Kempff Bay. This passage is shoal and has many rocks. A pilot can usually be obtained at the Lazy Bay cannery.

Figure 15
Akhiok



LAZY BAY

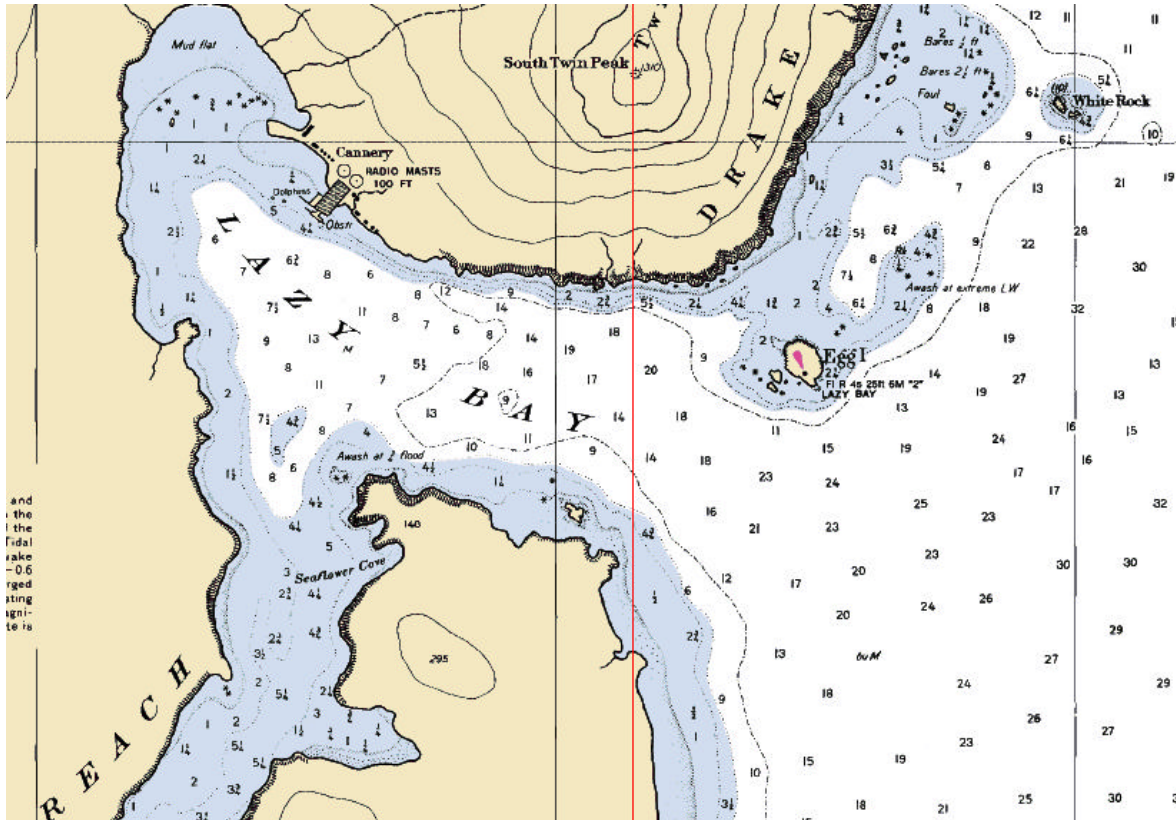
Alitak Bay at the S end of Kodiak Island has its entrance between Cape Alitak and Cape Trinity, and extends 26 miles in a N direction to the head of Deadman Bay. Lazy Bay is a good anchorage.

The country is treeless and except for outcropping ledges of bare rock on the knolls and peaks, the land is covered by thick moss and grass. A herd of reindeer is maintained in the vicinity of Lazy Bay by the natives.

Lazy Bay, 4 miles NE from Cape Alitak, is well marked by Twin Peaks and Egg Island on its N side, and some white rocky ledges close to its S entrance point. The shore S of the entrance is clear if given a berth of 0.4 mile with the exception of the shoal making off the SE side of Cape Alitak.

A cannery with a wharf, operated by the Columbia-Wards Fisheries, is on the N shore about 1 mile W from Egg Island. The wharf is 180 feet long with 30 feet reported alongside the face.

Figure 16
 Lazy Bay
 (Possible Alternative to Akhiok)

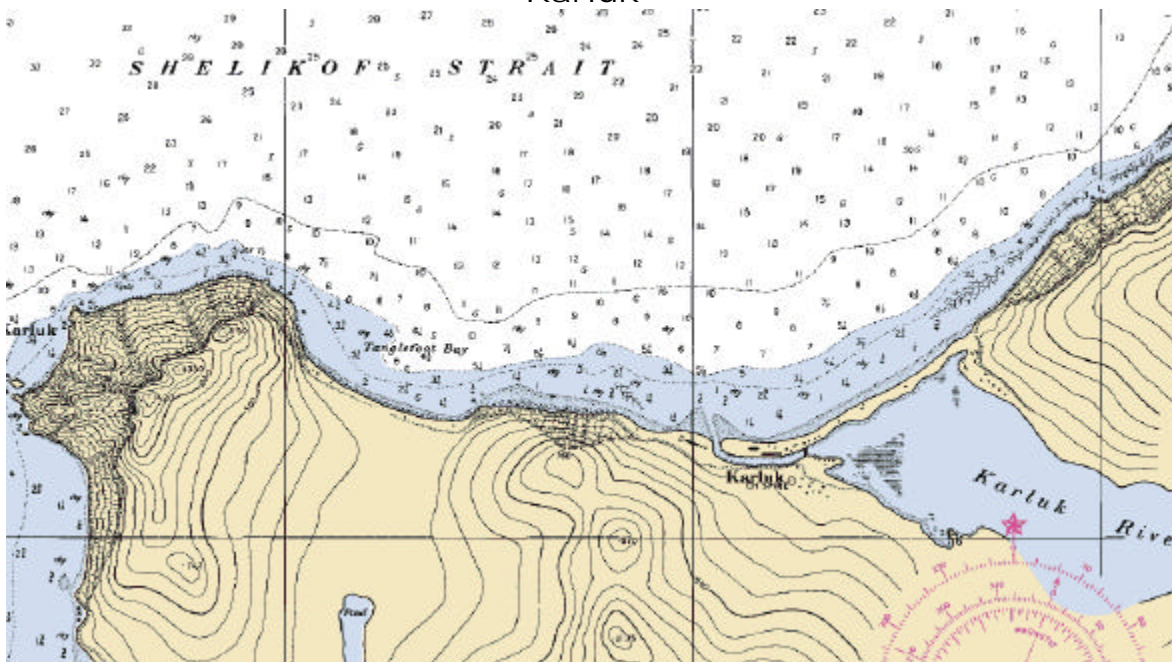


KARLUK (CHART 16599)

Karluk, 5.5 miles S from Cape Uyak and 1.5 miles E from Cape Karluk, is a native village with a school and a church. Fishing is the principal industry. The old cannery buildings are still standing but they are no longer used, as the fish are now taken to Uyak Bay for canning. A strong set S toward the shoals inshore has been experienced.

Karluk Anchorage, off Karluk, is sheltered from offshore winds but is exposed to winds from the SW around through W to NE. Vessels should be prepared to move on short notice. Anchorage may be had off the town in 12 to 14 fathoms, sandy bottom.

Figure 17
Karluk



LARSEN BAY (CHART 16599)

Larsen Bay is on the W side of Uyak Bay, 6 miles S from Harvester Island. Depths are 30 to 40 fathoms near its N side and less on the opposite side. From its head, a trail leads over a low divide to the Karluk River. A large cannery is in the bight just S of the inner S entrance point at the village of Larsen Bay. Gasoline, kerosene, and diesel oil are stored for cannery use and may be purchased. A machine shop is maintained for cannery use, and a store is available for purchasing of food and clothing in small quantities. A small dispensary and first aid station are available but no doctor is in residence. The marine railway can handle vessels up to 100 tons and 20 foot draft.

The entrance is between a spit extending 150 yards S of the N entrance point and a 20-foot rock near the outer end of the spit extending 150 yards from the outer S entrance point. A buoyed reef, which uncovers, is in the middle of the entrance. Two narrow crooked channels lead on either side of the reef. The preferred S channel, between the mid-entrance reef and the 20-foot rock, 200 yards SE from it, is marked by a 248° range. The front mark is a dolphin on the flats bearing a yellow wheel-type device, and the rear mark is a yellow circular disk painted under the gable of a building. This channel has a least depth of 24 feet on the range.

The channel N of the mid-entrance reef is deeper but necessitates a more difficult turn and for that reason is not recommended. A lighted buoy and a 226° range of the yellow dolphin and the two cannery stacks mark the channel. This channel has a least depth of 22 feet on the range. Both channels join SW of the reef, thence form a common entrance WNW into Larsen Bay. The channel into Larsen Bay is marked by unlighted buoys and a 290°30' lighted range. The channel has a least depth of 28 feet on the range.

A good anchorage for larger vessels will be found about 400 yards N from the small island on the S side of the bay, and about 700 yards off the cannery wharf in 20 fathoms, mud bottom. In W weather winds blow down the bay with great force, but the holding ground is good. In former years the cannery company moored its sailing vessels here during the summer months.

Routes. - Small vessels can enter Larsen Bay at any stage of the tide, but larger vessels should choose a high-water slack with calm water for entering or leaving.

Enter on the range and pass midway between the reef marked by a buoy on the N side and the 20-foot rock, 200 yards S from it. Hold this range 248°, until within about 300 yards of the yellow dolphin and then pick up the 291°30' inner range, passing 100 yards off the end of the spit off the N entrance point and 150 yards off the inner entrance point on the port hand. When the inner S entrance point is a little abaft the beam change to 263° for 0.3 mile, then haul S and anchor as desired.